

CLAIMS

What is claimed is:

- 1 1. A method for providing broadcast discovery in a network having one or more
2 1394 buses, the method comprising the steps of:
3 generating advertised discovery information by devices connected to a bus upon
4 either a reset of said bus or a receipt of a solicit packet sent to all devices in the network
5 by a discovering device, said solicit packet containing either a global bus identifier or a
6 bus identifier associated with said bus;
7 receiving the advertised discovery information of the devices by the discovering
8 device; and
9 maintaining a list of devices and services included within the devices based on the
10 advertised discovery information received by the discovering device.
- 1 2. The method of claim 1 wherein a network having one or more 1394 buses further
2 comprises a non-1394 network connected to the one or more 1394 buses.
- 1 3. The method of claim 1 wherein a device in the network can be a consumer
2 electronic device, a peripheral device, a cable modem, or a personal computer.
- 1 4. The method of claim 2 wherein the non-1394 network simulates a bus with a bus
2 identifier equal to a simulated bus identifier.

1 5. The method of claim 1 wherein said solicit packet containing the global bus
2 identifier initiates all devices in the network to send the advertised discovery information
3 to the discovering device.

1 6. The method of claim 1 wherein said solicit packet containing the bus identifier
2 associated with said bus initiates only devices connected to said bus to send the
3 advertised discovery information to the discovering device.

1 7. The method of claim 1 wherein the advertised discovery information includes
2 device and service information.

1 8. An apparatus for providing broadcast discovery in a network having one or more
2 1394 buses, the apparatus comprising:

3 means for generating advertised discovery information by devices connected to a
4 bus upon either a reset of said bus or a receipt of a solicit packet sent to all devices in the
5 network by a discovering device, said solicit packet containing either a global bus
6 identifier or a bus identifier associated with said bus;

7 means for receiving the advertised discovery information of the devices by the
8 discovering device; and

9 means for maintaining a list of devices and services included within the devices
10 based on the advertised discovery information received by the discovering device.

1 9. The apparatus according to claim 8 wherein a network having one or more 1394
2 buses further comprises a non-1394 network connected to the multiple 1394 buses.

1 10. The apparatus according to claim 8 wherein a device in the network can be a
2 consumer electronic device, a peripheral device, a cable modem, or a personal computer.

1 11. The apparatus according to claim 9 wherein the non-1394 network simulates a bus
2 with a bus identifier equal to a simulated bus identifier.

1 12. The apparatus according to claim 8 wherein the means for generating advertised
2 discovery information by devices connected to a bus further comprises:

3 means for sending said solicit packet containing the global bus identifier to all
4 devices in the network; and

5 means for initiating all devices in the network to send the advertised discovery
6 information to the discovering device.

1 13. The apparatus according to claim 8 wherein the means for generating advertised
2 discovery information by devices connected to a bus comprises:

3 means for sending said solicit packet containing the bus identifier associated with
4 said bus to all devices in the network; and

5 means for initiating only devices connected to said bus to send the advertised
6 discovery information to the discovering device.

1 14. The apparatus according to claim 8 wherein the advertised discovery information
2 includes device and service information.

1 15. An apparatus for providing broadcast discovery in a network having one or more
2 1394 buses, the apparatus comprising:

3 an information generator for generating advertised discovery information by
4 devices connected to a bus upon either a reset of said bus or a receipt of a solicit packet
5 sent to all devices in the network by a discovering device, said solicit packet containing
6 either a global bus identifier or a bus identifier associated with said bus;

7 an information receiver for receiving the advertised discovery information of the
8 devices by the discovering device; and

9 a list maintainer for maintaining a list of devices and services included within the
10 devices based on the advertised discovery information received by the discovering device.

1 16. The apparatus according to claim 15 wherein a network having one or more 1394
2 buses further comprises a non-1394 network connected to the one or more 1394 buses.

1 17. The apparatus according to claim 15 wherein a device in the network can be a
2 consumer electronic device, a peripheral device, a cable modem, or a personal computer.

1 18. The apparatus according to claim 16 wherein the non-1394 network simulates a
2 bus with a bus identifier equal to a simulated bus identifier.

1 19. The apparatus according to claim 15 wherein the information generator
2 comprises:

3 a solicitor for sending said solicit packet containing the global bus identifier to all
4 devices in the network; and

5 a device initiator for initiating all devices in the network to send the advertised
6 discovery information to the discovering device.

1 20. The apparatus according to claim 15 wherein the information generator
2 comprises:

3 a solicitor for sending said solicit packet containing the bus identifier associated
4 with said bus to all devices in the network; and

5 a device initiator for initiating only devices connected to said bus to send the
6 advertised discovery information to the discovering device.

1 21. The apparatus according to claim 15 wherein the advertised discovery information
2 includes device and service information.

1 22. A machine readable medium having embodied thereon instructions, which when
2 executed by a machine, causes the machine to:

3 provide broadcast discovery in a network having one or more 1394 buses, the
4 instructions comprising:

5 a first set of instructions for generating advertised discovery information
6 by devices connected to a bus upon either a reset of said bus or a receipt of a
7 solicit packet sent to all devices in the network by a discovering device, said
8 solicit packet containing either a global bus identifier or a bus identifier associated
9 with said bus;

10 a second set of instructions for receiving the advertised discovery
11 information of the devices by the discovering device; and

12 a third set of instructions for maintaining a list of devices and services
13 included within the devices based on the advertised discovery information
14 received by the discovering device.

1 23. The machine readable medium according to claim 22 wherein the network having
2 one or more 1394 buses further comprises a non-1394 network connected to the one or
3 more 1394 buses.

1 24. The machine readable medium according to claim 22 wherein a device in the
2 network can be a consumer electronic device, a peripheral device, a cable modem, or a
3 personal computer.

1 **25.** The machine readable medium according to claim **23** wherein the non-1394
2 network simulates a bus with a bus identifier equal to a simulated bus.

1 **26.** The machine readable medium according to claim **22** wherein the first set of
2 instructions for generating advertised discovery information by devices connected to a
3 bus further comprises instructions for sending said solicit packet containing the bus
4 identifier associated with said bus to all devices in the network and instructions for
5 initiating only devices connected to said bus to send the advertised discovery information
6 to the discovering device.

1 **27.** The machine readable medium according to claim **22** wherein the first set of
2 instructions for generating advertised discovery information by devices connected to a
3 bus further comprises instructions for sending said solicit packet containing the global
4 bus identifier to all devices in the network and instructions for initiating all devices in the
5 network to send the advertised discovery information to the discovering device.

1 **28.** The machine readable medium according to claim **22** wherein the advertised
2 discovery information includes device and service information.